

Notice of Allowability

Application No.

10/671,090

Applicant(s)

HARAGUCHI, MANABU

Examiner

George R. Koch III

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/31/2005.
2. ☒ The allowed claim(s) is/are 1,4-7,9,10 and 13.
3. ☒ The drawings filed on 25 September 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Allowable Subject Matter

1. Claims 1, 4-7, 9-10, and 13 are allowed
2. The following is a statement of reasons for the indication of allowable subject matter: With regard to all claims, the prior art of record, especially Kyomasu (US 6,449,516) does disclose an offset measuring mechanism is a bonding apparatus having a position detection camera, bonding tool, moving means, with the offset measuring mechanism having an offset measuring camera, an imaging position measuring means, a tool position measuring means and offset calculating means (see prior office action). However, with regard to claims 1, 4-7, 9-10, the prior art of record does not suggest, in the context of the above limitations, in an offset measuring mechanism comprising a bonding tool, that the position detection camera has a plurality of imaging elements disposed in two dimensions in directions of mutually perpendicular imaging reference axes of the imaging plane, and the reference position of the imaging range is a reference position of the two dimensional disposition of the plurality of imaging elements. Position detection cameras that have a plurality of imaging elements are generically known (for example, Baldwin, US 6,678,058, item 34), but there is no suggestion for combining this camera, with the imaging means, with the offset camera.
3. With regard to claim 13, the prior art of record does suggest generic controls capable of performing various calculations. However, the prior art of record does not suggest offset measuring camera inclination means, wherein said offset measuring camera inclination calculating means uses said moving means to move said bonding tool into a measurement range of said offset measuring camera and to further move

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said bonding tool within said measurement range; measures a movement direction of an image of said bonding tool on said imaging plane of said offset measuring camera corresponding to said movement relative to mutually perpendicular measurement reference axes on said imaging plane of said offset measuring camera; and calculates a relative inclination between movement reference axes of said moving means and measurement reference axes of said offset measuring camera based upon a movement direction of said bonding tool relative to mutually perpendicular movement reference axes of said moving means and a movement direction of an image of said bonding tool.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R. Koch III whose telephone number is (571) 272-1230 (TDD only). If the applicant cannot make a direct TDD-to-TDD call, the applicant can communicate by calling the Federal Relay Service at 1-866-377-8642 and giving the operator the above TDD number. The examiner can normally be reached on M-Th 10-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



George R. Koch III
Patent Examiner
Art Unit 1734

GRK
2/26/2005



CHRIS FIORILLA
SUPERVISORY PATENT EXAMINER

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